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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/759,458 | 01/16/2004 | Christian Knopfle | 60,500-116 | 7719 |

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| EXAMINER | |
|---|---|
| REIS, TRAVIS M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2859 | |

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/759,458 | KNOPFLE ET AL. | |
| | Examiner | Art Unit | |
| | Travis M. Reis | 2859 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *22 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 February 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-11 & 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hite (U.S. Patent 3230628) in view of Cronk (U.S. Patent 1860174).

Hite discloses a measuring device for bone screws, as shown in Figure 1, the device comprising a surface, a receiving groove (12) for bone screws (15), the receiving groove being located in the surface, the receiving groove being associated with a limit stop to cooperate with a received bone screw and with a length measuring scale for a bone screw, the receiving groove and the associated limit stop having a selectivity with respect to the shaft diameter of the bone screw which can be received in the receiving groove; wherein the measuring device further comprises an opening (16) being associated with the receiving groove and the opening cross-section of the opening which is associated with the receiving groove being adapted to the associated selectivity; wherein the opening is arranged in the surface in which the receiving groove is formed; wherein the receiving groove has an open

end in the area of a face of the device, said face running essentially vertically to the surface; wherein the limit stop is arranged in the region of the face or is formed from the face; wherein the limit stop is formed to cooperate with the underside of a screw head; wherein the limit stop has, opposite each other, two limit areas, the distance of which from each other defining the selectivity; and wherein the receiving groove has an open angle range with reference to the surface, with respect to an axis of symmetry which runs along its axial extension; wherein the bone screw has differently formed or dimensioned transitions from screw shaft to a screw head.

Hite does not disclose multiple receiving grooves having a selectivity with respect to the shaft diameter of screws, multiple receiving openings with different opening cross-sections, and the specific open angle range of the receiving grooves.

With respect to the multiple receiving grooves having a selectivity with respect to the shaft diameter of screws, and multiple receiving openings with different opening cross-sections: Cronk discloses a measuring device, as shown in Figure 1, having multiple receiving grooves 6-13 having a selectivity with respect to the different shaft diameter of rivets, and multiple receiving openings 16-23 with different opening cross sections. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the measuring device disclosed by Hite by providing multiple receiving grooves and multiple receiving openings as taught by Cronk in order to measure the length of bone screws of different diameters.

With respect to the specific open angle range of the receiving grooves, i.e., between 20 and 240 degrees and less than approximately 175 degrees: Hite as modified by Cronk disclose a measuring device for measuring bone screws of different shaft diameters, said device having receiving grooves having an open angle range with reference to the surface, with respect to an axis of symmetry which runs along their axial extension. It has been held

that where the general conditions of a claim are disclosed in the prior art, discovering the "optimum range" involves only routine skill in the art. ***In re Aller***, 105 USPQ 233. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to provide the grooves disclosed by Hite as modified by Cronk with an open angle of between 20 and 240 degrees, and less than approximately 175 degrees, as claimed by applicant, in order to properly support the bone screws.

4. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hite & Cronk as applied to claims 1-11 & 15-18 above, and further in view of DiCarlo (U.S. Patent 5180388).

Hite as modified by Cronk disclose all of the instant claimed invention as stated above in the rejection of claims 1-11 & 15-18 but do not disclose a bone drill, information about a current drilling depth attached to the drill and corresponding information on the measuring device, and the information about the drilling depth including a color scale.

With respect to the bone drill, the information about a current drilling depth attached to the drill and corresponding information on the measuring device, and the information about the drilling depth including a color scale: DiCarlo discloses a device, as shown in Figure 1, having a bone drill (30) insertable to different depths into a bone (40) wherein information about a current drilling depth is attached to the bone drill and corresponding information (22) is provided on a device (20), and wherein information about the drilling depth includes a color scale (col. 2 lines 66-68 and col. 3 lines 1-5). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add a bone drill as taught by DiCarlo to the device disclosed by Hite as Modified by Cronk in order to provide the user with an accessible bone drill to be used during surgery. Once the modification is made, i.e., the bone drill is located on a surface of the measuring device disclosed by Hite as modified by Cronk, the information will be on the measuring

device.

***Response to Arguments***

5. In response to applicant's arguments that Cronk fails to disclose a length measuring scale associated with any of the receiving notches; these arguments have been fully considered but they are not persuasive since Hite already discloses this feature, and so such a feature is not required to be present in the Cronk reference, as detailed above in paragraph 3.

6. In response to applicant's argument that there is no suggestion to combine the references of Hite & Cronk, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the existence of different bone screw diameters would suggest the advantage shown in Cronk of multiple receiving grooves that would motivate one skilled in the art to modify Hite to include said multiple receiving grooves.

7. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

8. In response to applicant's arguments that neither Hite, nor Cronk disclose a length

measuring scale associated with each of the multiple receiving grooves; these arguments have been fully considered but they are not persuasive since Hite, alone, discloses a length measuring scale associated with the receiving groove, and therefore it follows that when the receiving groove is duplicated following the teaching of Cronk, the length measuring scale would also be duplicated, as detailed above in paragraph 3.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M. Reis (571) 272-2249; 8--5 M--F. If attempts to reach the examiner by telephone are unsuccessful, contact the examiner's supervisor, Diego Gutierrez (571) 272-2245. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Travis M Reis
Examiner
Art Unit 2859

Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800

tmr
May 10, 2005

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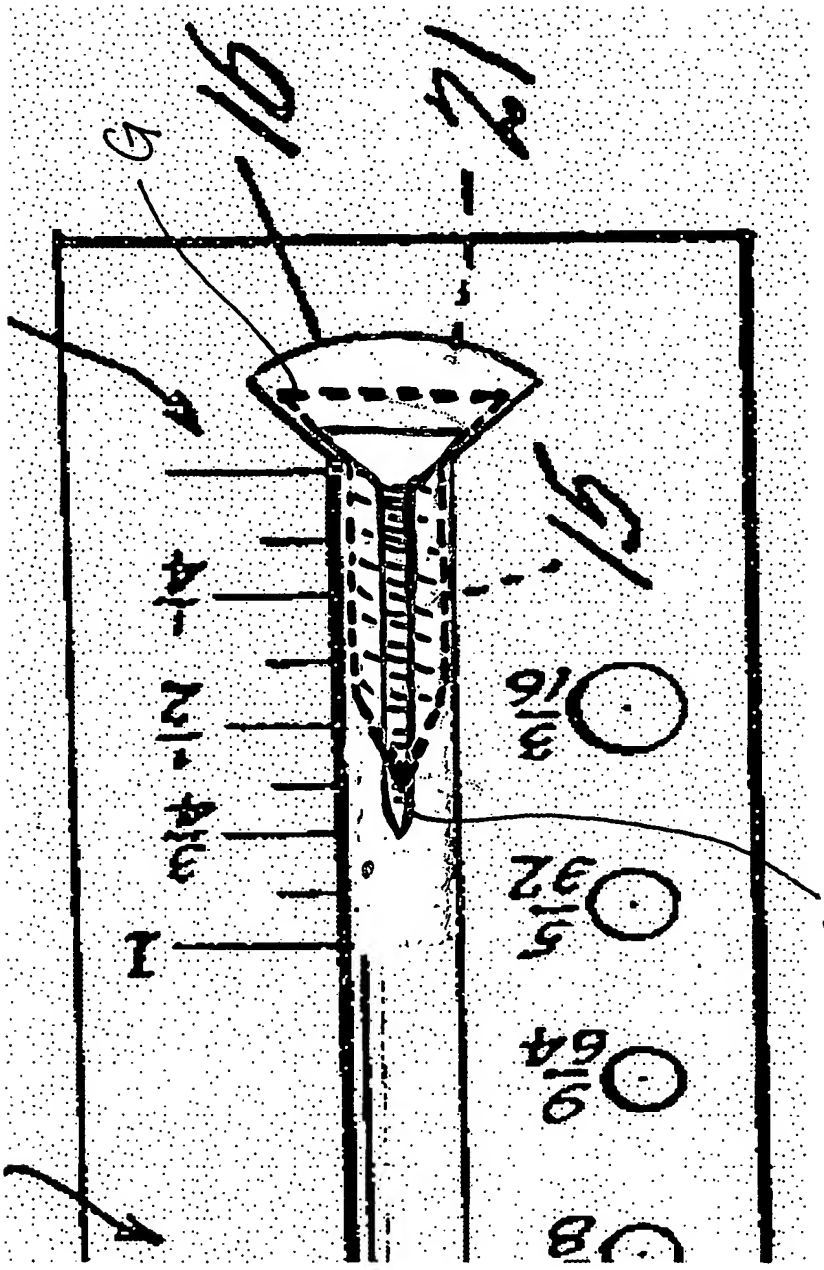


Exhibit 1

Approved
TMR 5/10/05